

## **Amendments to the Claims**

Please amend the claims without prejudice. The listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of the Claims**

1. (Currently amended) A drilling apparatus comprising:  
a turbine (2) being provided with a turbine shaft (4),  
a hydraulic braking device configured to operate with the turbine wherein the hydraulic braking device consists of one or more ~~comprises at least one~~ bodies (12) connected to the turbine shaft (4),

and wherein when the hydraulic braking device (10) is immersed in a fluid medium, rotation of the turbine shaft (4) about its axis (6) causes a movement of the one or more ~~at least one~~ bodies (12) with respect to the fluid medium, this movement generating a resisting torque (T) that is a function of the square of the rotation speed ( $\omega_t$ ) of the turbine shaft (4) with respect to the fluid medium providing a quadratic relation; and

wherein the construction of the braking device is such that a braking effect is obtained when the rotation speed of the turbine exceeds a predetermined threshold value and the braking effect is not obtained when under the predetermined threshold value as a result of the quadratic relation.

2. (Currently amended) The device (10) according to claim 1, further comprising a braking shaft (14) coupled to the turbine shaft (4), the at least one one or more bodies (12) being connected to the braking shaft (14).

3. (Previously presented) The device (10) according to claim 2, wherein the coupling between the braking shaft (14) and the turbine shaft (4) is such that an axial rotation of the turbine shaft (4) causes axial rotation of the braking shaft (14).

4. (Previously presented) The device (10) according to claim 2, wherein the braking shaft (14) is coaxial with the turbine shaft (4).

5. (Previously presented) The device (10) according to claim 2, wherein the braking shaft (14) and the turbine shaft (4) are combined into a single shaft.

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Currently amended) The device (10) according to claim 2, wherein the one or more ~~at least one~~ bodies iesy (12) is driven in rotation with the braking shaft (14) when the turbine shaft (4) rotates about its axis.

10. (Currently amended) The device (10) according to claim 2, wherein the one or more ~~at least one~~ bodies iesy (12) is rigidly connected to the ~~said~~ braking shaft (14) through a connecting means (18, 20).

11. (Currently amended) The device (10) according to claim 2, wherein the one or more ~~at least one~~ bodies iesy (12) is fixed directly onto the braking shaft (14) through a connecting means composed of at least one anchor zone (18) of the bodies iesy (12).

12. (Canceled)

13. (Canceled)

14. (Previously presented) The device (10) according to claim 2 wherein when ~~it~~ the hydraulic braking device comprises more than one body (12), the bodies (12) are distributed around the periphery of the braking shaft (14), in a regular manner, or in a non-regular manner.

15. (Previously presented) The device (10) according to claim 2, wherein when ~~it~~ the hydraulic braking device comprises more than one body (12), the bodies (12) have either all the same axial positions along the braking shaft (14), or different axial positions along the braking shaft (14).

16. (Previously presented) The device (10) according to claim 1, wherein when ~~it~~ the hydraulic braking device comprises more than one body (12), the bodies (12) are chosen to be identical or different

17. (Previously presented) The device (10) according to claim 1, wherein when ~~it~~ the hydraulic braking device comprises more than one body (12), the bodies (12) all have the same dimensions.

18. (Canceled)

19. (Previously presented) The device (10) according to claim 1, wherein ~~it~~ the hydraulic braking device is arranged on the downstream side of the turbine (2) with respect to a flow direction of the fluid medium.

20. (Canceled).

21. (Canceled)

22. (Canceled)

23. (Currently amended) A turbine (2) comprising:

- a turbine shaft (4) and;
- a hydraulic braking device (10) ~~comprising~~ consisting one or more at least one bodies (12) connected to the turbine shaft (4);

wherein when the hydraulic braking device (10) is immersed in a fluid medium, rotation of the turbine shaft (4) about its axis (6) causes a movement of the one or more ~~at least one~~ bodies (12) with respect to the fluid medium, this movement generating a resisting torque (T) that is a function of the square of the rotation speed ( $\omega$ ) of the turbine shaft (4) with respect to the fluid medium providing a quadratic relation; and

wherein the construction of the braking device is such that a braking effect is obtained when the rotation speed of the turbine exceeds a predetermined threshold value and the braking effect is not obtained when under the predetermined threshold value as a result of the quadratic relation.

24. (New) The device according to claim 1, wherein the one or more bodies extent in along a length of the turbine shaft.

25. (New) The device according to claim 1, wherein the one or more bodies extent in a substantially normal direction from the turbine shaft.

26. (New) The device according to claim 1, wherein a flow of fluid medium drives the turbine.

27. (New) The device according to claim 1, wherein the flow is parallel to a central axis of the turbine shaft and to a length of one or more bodies.